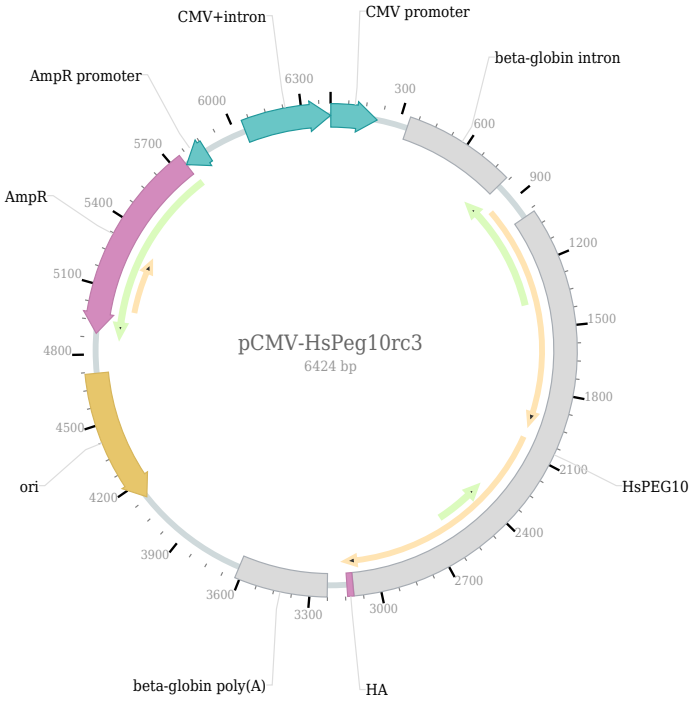
pCMV-HsPeg10rc3

Vector ID	V017082
Antibiotic Resistance	Ampicillin
Length	6424 bp
Vector Type	Protein expression
Host	Mammalian cells

Product Information

Replication Origin	ori
Promoter	CMV
Growth Strain(s)	Stbl3
Growth Temperature	37℃
Comment	pCMV-HsPeg10rc3 is a CMV-driven mammalian expression plasmid from Feng Zhang's lab for human SEND mRNA delivery system. It encodes recoded human PEG10 (rHsPEG10), with internal cis RNA-binding motifs removed to boost cargo mRNA packaging efficiency into virus-like particles (VLPs). Co-transfected with fusogen plasmids (VSVg or SYNA) and Hs.cargo(RNA) constructs, it produces functional human SEND VLPs for intercellular mRNA transfer. The recoded PEG10 self-assembles into capsids and specifically recognizes mRNAs tagged with human PEG10 UTR packaging signals. This core vector enables low-immunogenic mRNA and CRISPR effector delivery in human cell lines as validated in the 2021 Science SEND study.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.